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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/972,960	10/10/2001	Hideo Miura	Q66637	6254

7590

06/10/2003

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EXAMINER

NGUYEN, PHILLIP

ART UNIT

PAPER NUMBER

2828

DATE MAILED: 06/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/972,960

Applicant(s)

MIURA ET AL.

Examiner

Phillip Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

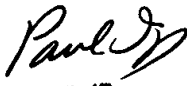
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

  
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**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.                      6) ☐ Other:

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 5 and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 recites “the wavelength plate is disposed substantially orthogonal to an optical axis” which is not clear what axis that the wavelength plate is orthogonal to because there could be a lot of optical axes.

Claim 7 recites “the beam splitter and the photodiode are shielded from light” which is not clear because if they are shield from light emitting from the laser, they will not be able to perform their functions.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-2 and 4-10 are rejected under 35 U.S.C. 102(a) as being anticipated by Baird et al. (US Pub No. 2002/0005396).

With respect to claims 1 and 4, Baird discloses in Figure 3 a light wavelength converting module comprising a semiconductor laser 54 from which a fundamental wave exits, a light wavelength converting element 72 which is optically coupled to the laser, and which converts a wavelength of the fundamental wave which has entered from the laser, a wave plate (see paragraph 0038) disposed at a light exiting side of the light wavelength converting element, and a removing portion 76 disposed between the wavelength plate and the light wavelength converting element for removing the fundamental wave from light incident on the removing portion. Baird further discloses wherein the wave plate being half-wave plate (paragraph 0038).

With respect to claim 2, Baird discloses wherein the removing portion being an IR cutting/blocking filter (see paragraph 0037).

With respect to claim 5, since Baird discloses the rotation half-plate, it could be orthogonal to an optical axis.

With respect to claims 6 and 9, Baird also teaches a beam splitter 102, in Figure 6, positioned at the exit side of wavelength converting element 72. It is noted that there are several branches that light exits from the laser labeled such as 56, 68, and 74; however light 74 passes

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through all the elements in its path until reaching the UV Detection Module 100a. Since Baird discloses the wave plate as shown in above rejection, it leads to a conclusion that beam splitter is disposed at the exit side of the wave plate. Baird further discloses an attenuating portion 106.

With respect to claims 7 and 10, Baird discloses a beam splitter as mentioned in claim 6 and also a photodetector 104, in Figure 6. Baird further discloses an attenuating portion 106.

With respect to claim 8, Baird discloses in Figure 6 a light attenuating portion 106, which attenuates light passing therethrough, is provide at light exiting side of light wavelength converting element.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baird et al. (US Pub No. 2002/0005396) in view of Raymond et al. ('038). Baird discloses the claimed invention except for the light wavelength-converting element being joined directly to the semiconductor laser. Lawandy discloses in Figure 6 a laser and a light-converting element directly joined (col. 9, lines 6-8). For the improvement of the light wavelength converting module, it would have been obvious to the one having ordinary skill in the art at the time the invention was made to provide a laser and light converting element that are joined directly as taught by Lawandy so the device can be made of compact.

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*Citation of Pertinent References*

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The Publication to Baird et al. discloses UV Laser System and Method for Single Pulse Severing of IC Fuses, U.S. Pub No. 2002/0005396

The patent to Lawandy discloses Methods for Fabricating...thereby, U.S. Patent No. 5028109

*Communication Information*

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phillip Nguyen whose telephone number is 703-305-4966. The examiner can normally be reached on Monday to Friday from 8:30 AM to 5:30 PM

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Ip, can be reached on (703) 308-3098. The fax phone numbers for the organization where this application or proceeding is assigned are:


TC2800 Official Before-Final RightFAX - (703) 872-9318

TC2800 Official After-Final RightFAX - (703) 872-9319

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0658.

December 26, 2002

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